

TWO NEW SPECIES OF *GIBASIS* (COMMELINACEAE) FROM NUEVO LEÓN, MEXICO

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ABSTRACT

Two new species of *Gibasis*, *G. gypsophila* B.L. Turner and *G. hintoniorum* B.L. Turner, are described from southern Nuevo León, México, the former occurring in gypseous soils, the latter in calcareous.

KEY WORDS: Commelinaceae, *Gibasis*, México, Nuevo León

Routine identification of collections by Hinton *et al.* from southern Nuevo León, México has revealed the following novelties.

***Gibasis gypsophila* B.L. Turner, *sp. nov.* TYPE: MEXICO. Nuevo León: Mpio. Galeana, along road between La Poza and Río de San José, gypsum cliff, 1365 m, 1 Jul 1992, *G.B. Hinton et al.* 22082 (HOLOTYPE: TEX!).**

Gibasi pellucidae (Mart. & Gal.) D.R. Hunt similis sed petalis caeruleis vel modice caeruleis (vs. albis) et foliis latioribus penitus glabris subsucculentisque differt.

Perennial, glabrous herbs 40-60 cm high, the roots unknown. Stems erect, glabrous. Midstem leaves succulent, glabrous, mostly broadly ovate-lanceolate to subcordate, spirally arranged, 4-7 cm long, 2-4 cm wide, the apices acute, sheathing for 2-6 mm. Flowers arranged terminal or subterminal, 3-5-nate, the pedicels glabrous mostly 6-10 mm long. Sepals 3, ovate to ovate-elliptic, glabrous, 5-6 mm long. Petals 3, blue or bluish-white, separate, obovate, 6-7 mm long. Stamens 6, ca. as long as or somewhat shorter than the petals; filaments moderately pubescent with long, uniseriate trichomes; anthers ca. 1.5 mm across, the connective ca. 1 mm wide, 0.4 mm high. Ovary ca. 3

mm high, sparsely pubescent near apex, style ca. 4 mm long; stigma capitate. Fruiting material absent.

ADDITIONAL SPECIMENS EXAMINED: MEXICO. Nuevo León: Mpio. Aramberri, along road between Aramberri and El Saitre, gypsum hillside, 1325 m, 26 Oct 1993, *Hinton et al.* 23758 (TEX). Mpio. Galeana, along road between La Poza and San José, by stream in gypsum hills, 1320 m, 1 Sep 1992, *Hinton et al.* 22376 (TEX). Mpio. Zaragoza, Cerro Viejo, pine-oak woods, 1685 m, 22 Sep 1993, *Hinton et al.* 23406 (TEX); Cerro Viejo, pine-oak woods, 1990 m, 22 Sep 1993, *Hinton et al.* 23482 (TEX).

This species superficially resembles *Gibasis pellucida* (Mart. & Gal.) D.R. Hunt but is substantially different in possessing much broader, absolutely glabrous, subsucculent leaves and blue or bluish petals. Excepting the two collections from Cerro Viejo (cited above), for which substrate data are lacking, this taxon appears to be largely confined to gypseous soils. In Hunt's (1986) treatment, *Gibasis gypsophila* will not key to *G. pellucida* because of its bluish corollas, but in spite of their corolla and vegetative differences, as noted above, the two species seem closely related by inflorescence and floral characters.

Gibasis hintoniorum B.L. Turner, *sp. nov.* TYPE: MEXICO. Nuevo León: Mpio. Aramberri, W of La Soledad, shrubby limestone hillside, 1670 m, 23 Jul 1993, *G.B. Hinton et al.* 23013 (HOLOTYPE: TEX).

Gibasi karwinskyanae (Schultes) Rohw. similis sed plantis sub-acaulescentibus (ca. 10 cm altis) foliis paucioribus subsucculentis penitus glabrisque differt.

Perennial, tuberous-rooted, glabrous herbs ca. 10 cm high. Roots forming a fasciculum of ca. 20 fusiform tubers, after drying the tubers 3-6 cm long, ca. 0.8 cm wide. Primary stem ca. 4 cm long, glabrous. Leaves lanceolate, 6-8 cm long, 1.6-2.0 cm wide. Inflorescences both pseudoterminal and axillary, the common peduncles 3-4 cm long, these terminated by two much-reduced, leaf-like bracts 1-2 cm long. Flowers mostly 3-8, arranged in fasciculate, umbel-like units, the ultimate pedicels mostly 6-10 mm long. Sepals green with scarious margins, broadly ovate, ca. 6 mm long, 3-5 mm wide, glabrous. Petals "blue" to "purple-pink", broadly obovate, 8-9 mm long, 6-7 mm wide, not clawed. Stamens 6, the filaments ca. 4 mm long, densely pubescent for ca. 2/3 of their lower length with purple multiseptate trichomes, the anther thecae oval, yellow, their connectives trapezoidal, ca. 0.6 mm broad, ca. 0.3 mm high. Ovary glabrous, the style ca. 2 mm long, the stigma penicellate-capitate. Mature capsules not available.

At first glance, because of its dwarf habit and succulent basal leaves, this species looks to be a *Tradescantia*. However, it has the inflorescence of *Gibasis*

as delimited by Hunt (1986). In the latter treatment, *G. hintoniorum* will key, if at all, to *G. consobrina* D.R. Hunt to which it bears little resemblance. In the diagnosis, I have compared *G. hintoniorum* with *G. karwinskyana* (Schultes) Roem., because both species occur in the vicinity of Aramberri and both possess tuberous roots, but habitally and in branching patterns of the inflorescence they seem markedly different. While numerous collections of *G. karwinskyana* are known from southern Nuevo León and closely adjacent Tamaulipas (LL,TEX), none of these approaches *G. hintoniorum*, the latter known only from type material.

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LITERATURE CITED

Hunt, D.R. 1986. A revision of *Gibasis* Rafin. Kew Bull. 41:107-129.